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ABSTRACT

This report, divided into six sections, is a summary of a study to research the costs of implementing Individually Guided Instruction (IGE). Section 1 introduces IGE and gives a brief overview of all studies conducted as part of the Institute for Development of Educational Activities grant to Teachers College, University of Nebraska. Section 2, "Need for the Study," reviews related research literature, and the value of the study. Section 3, "Purpose of the Study," includes: (a) a statement of purpose, (b) assumptions, (c) delimitations and limitations, and (d) definitions of study. Section 4, "Procedures," includes information on the sample, data collection, and data analysis. Section 5, "Presentation and Interpretation," includes discussions and interpretations relating to startup and ongoing costs associated with specific cost factors relating to (a) staff development, (b) instructional personnel, (c) instructional materials, (d) administration, (e) public relations, (f) physical plant, (g) league participation, and (h) supplementary funding. Section 6, "Summary and Conclusions," summarizes the purpose and design of the study, draws conclusions presented in 16 points, illustrates cost changes anticipated for a traditional school move to the IGE program, and recommends five areas for further research. (Four appendixes are included.) (PD)

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DEVELOPMENT OF A COST ANALYSIS MODEL WHICH SCHOOLS MAY USE TO DETERMINE BUDGET NEEDS FOR IMPLEMENTING INDIVIDUALLY GUIDED EDUCATION (IGE)

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TABLE OF CONTENTS

		Page
I.	OVERVIEW	1
	What is IGE?	2
	Need for Evaluation	2
	Evaluation of IGE	3
II.	NEED FOR THE STUDY	4
	Related Research	4
	Value	7
III.	PURPOSE OF THE STUDY	8
	The Problem	8
	Assumptions	9
	Delimitations and Limitations	9
	Definitions	10
IV.	PROCEDURES	12
	Design and Sample	12
	Instrument Development and Data Collection	14
	Data Analysis and Reporting	15
V.	PRESENTATION AND INTERPRETATION	16
	Staff Development	16
	Instructional Personnel	22
	Instructional Materials	28
	Administration	30
	Public Relations	32
	Physical Plant	32
	League Participation	36
	Supplementary Funding	36
VI.	SUMMARY AND CONCLUSIONS	39
	Summary	39
	Conclusions	41
	Illustrative Cost Changes	47
	Recommendations for Further Study	51

Page

APPENDIX A

IGE Instructional Outcomes 53

APPENDIX B

Basic Background Data 57
School Descriptions 58

APPENDIX C

Original Instrument 74

APPENDIX D

Revised Instrument 84
Instructions for Instrument 97

DEVELOPMENT OF A COST ANALYSIS MODEL WHICH SCHOOLS MAY USE TO DETERMINE BUDGET NEEDS FOR IMPLEMENTING INDIVIDUALLY GUIDED EDUCATION (IGE)

The following report is organized into six major sections: (1) Overview: introduction to IGE and brief overview of all studies conducted as part of the /I/D/E/A/ grant to Teachers College, University of Nebraska; (2) Need for the Study; a statement of need, brief review of the related research and literature, and value of the study; (3) Purpose of the study: a statement of purpose, assumptions, delimitations and limitations, and definitions of the study; (4) Procedures: information on the sample, data collection and data analysis; (5) Presentation and interpretation of the data: data presentation, discussion, and important findings of the study; and (6) Summary and Conclusions: summary, conclusions, and recommendations for further research.

I. OVERVIEW

Since the late 1960's Individually Guided Education (IGE) has been sweeping the country's elementary schools. From its conception at the University of Wisconsin in 1966 through the involvement of the Institute for Development of Educational Activities /I/D/E/A/ in the development of an implementation strategy in 1969, the number of schools using this Model has grown from thirteen in one state to over seven hundred in thirty-one states. This growth has made IGE the most frequently adopted change model for elementary education in the United States.

What is IGE?

IGE is an approach to schooling that provides a framework for individualizing instruction. It also involves teachers in a systematic program of

self-improvement through the development of the skills and understanding necessary to implement an individualized program. (See Appendix A for a detailed list of outcomes for IGE).

While the popularity of IGE can be attributed, in great part, to its emphasis on individualization, another reason for its rapid adoption seems to be its ability to encompass the best practices found in today's elementary schools. In fact, the IGE model makes use of such innovations as team teaching, differentiated staffing, multi-age grouping, and continuous progress curriculum. These and other practices are all part of the system defined by components of the IGE. These components include: (1) an instructional cycle, (2) a multi-unit organization, (3) home-school relations and (4) league linkage.

Need for Evaluation

With the increase in the number of schools adopting the /I/D/E/A/ change model, the requests for information about the impact of IGE on students, teachers, and parents has increased. Educators, school board members, parents, and the lay public have all begun to ask for research data to support the commitment of expenditures--both human and financial--required when implementing the model.

Evaluation is essential to any educational program, but especially for a change program like IGE that has been adopted so quickly by so many schools. In the past, educators have given relatively low priority to systematic assessment of innovative programs. This lack of attention to the collection of data has resulted in the elimination of a number of excellent programs, when sound research findings would have resulted in more appropriate decisions.

Research data is needed to avoid similar mistakes when determining the fate of IGE schools. Even more crucial, answers are needed to the questions

coming from educators and school board members trying to determine whether their schools will adopt IGE.

Evaluation of IGE

In response to this need for data to make decisions regarding implementation and effect of IGE, /I/D/E/A/ funded three grants to support research studies during the 1972-73 school year. One of the grants was made to Teachers College, University of Nebraska. This grant supported research in four broad areas: (1) the costs of implementing IGE, (2) the effects of IGE on student attitudes and self-concept, (3) the effects of IGE on school climate, and (4) the role of the IGE facilitators. Funds were also provided to identify instruments which measure student self-direction, learning how to learn skills, and problem solving skills and to develop a design for a study to measure the effect of IGE on these outcomes.

In the following pages the reader will find a summary of the cost study.

II. NEED FOR THE STUDY

"In any new program, the questions of how much it will cost and what kind of building arrangement will be needed always arise. And IGE is no different"[1]

However promising IGE appears, or any new educational change, cost plays the major role in the successful implementation of that change into the school's educational program. Legitimate cost questions for those contemplating the implementation of an educational program are whether the proposed change will:

--reduce costs and retain comparable educational benefits,

--improve educational benefits at comparable costs, or

--improve educational benefits at bearable cost increases relative to gains.[2]

Therefore, a cost analysis study appears to be an important first step relative to the implementation of a new program, particularly, as it relates to program effectiveness and educational benefits.

Presently, IGE is the most frequently adopted change model for elementary education in the United States. As stated in the overview, the Kettering IGE Model new exists in over seven hundred schools in thirty-one states. Thus, a cost analysis of the Individually Guided Education program seems imperative for educational leaders.

Related Research

Because of the traditional nature of school accounting, precise cost data relative to the configuration of human and material resources has been difficult to obtain. Since education takes place in an open system and

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[1]Holzman, Seymour. IGE: Individually Guided Education and the Multi-unit School. National School Public Relations Association, 1972, p. 18.

[2]Swanson, Carl W. The Costs of Differentiated Staffing. Phi Delta Kappan, 1972, p. 344.

any educational innovation is then imbedded into that system, it is difficult to define the boundaries of the innovation sub-system. Money, time, and manpower resources that are necessary for implementation are, therefore, difficult to define and estimates at best are all that one presently can expect. Thus, there exist a paucity of research on the relationship of innovation implementation and costs.

More specifically cost research as related to the educational innovation of IGE is even more lacking because of the relative newness of IGE. The most relevant study conducted to date related to cost and IGE was a survey conducted during the fall of 1972 by the Wisconsin Research and Development Center for Cognitive Learning.

The Wisconsin study[3] will be reviewed here since it is the most pertinent study that is related to the research in this report. The principle purpose of the study was to identify any increase or decrease in expenditures among a stratified sample of schools based on size during their first year of implementing IGE/Multi-unit. General categories of student costs, staff costs, staff development expenditures, instructional materials and equipment, and plant and furnishings were reported. Specific cost factors causing any increase or decrease identified were not looked at. In addition, no attempt was made to look at relationships between costs and effectiveness of implementation or to identify specific types of costs to be expected in moving from selected types of traditional schools to an IGE school. Sole use was made of a self-reporting instrument in the data collection.

The authors of the study acknowledged the limitations of their study and recommended that other researchers be encouraged to investigate more

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[3]The discussion presented is based on a June 13, 1973 unpublished draft copy of Chapter IV (Summary, Conclusions, and Implications) of a cost to change to IGE study conducted by the Wisconsin Research and Development Center for Cognitive Learning at Madison, Wisconsin.

precisely some of the questions raised by their study. The author's hoped that their study would provide insight into the cost of implementation of IGE but realized and encouraged that much additional research in the area needs to be done.

In regard to the more general topic of innovation implementation and costs most of the relevant research relates to cost-effectiveness[4,5,6] or studies in search of the cost-quality relationship in education.[7,8,9] An additional area of research relevant to the topic of cost-effectiveness is the methodology of cost-effectiveness. The most extensive document relevant to this topic was a dissertation by Pearson[10] entitled, "A Study of Cost-Effectiveness Analysis with Implications for Instructional Decision-Making." In it were summarized cost-effectiveness procedures suggested or used by others based on the screening of approximately two hundred related documents.

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[4]Aht, Clark C. and Miller, Peter S. Design for an Elementary and Secondary Education Cost-Effectiveness Model. Cambridge, Massachusetts. Aht, Associate Inc., Vol. I, June 30, 1967.

[5]Webster, Joan M. A Cost-Effective Analysis of Selected Reading Programs in the Grand Rapids Public School. Grand Rapids, Michigan. Unpublished manuscript, 1972.

[6]Badren, Yehia. A Cost/Effectiveness Model for Educational Programs. Princeton, New Jersey. Educational Testing Service, Report No.--RB-70-70, December, 1970.

[7]Finch, James N. Testing the Cost Yardsticks in Cost-Quality Studies. New York. Columbia University, Institute of Administrative Research, November, 1967.

[8]Kiesling, Herbert J. The Study of Cost and Quality of New York School Districts. Bloomington, Indiana. Indiana University, Office of Education Grant No. 0-8-080264-3732(085), February, 1970

[9]Hoggart, Sue A. Program Cost Analysis in Educational Planning. Santa Monica, California. Rand Corporation, Report No.--P-4744, December, 1971.

[10]Pearson, Robert H. A Study of Cost-Effectiveness Analysis with Implications for Instructional Decision-Making. Ann Arbor, Michigan. University Microfilms, No. 72-20,363, 1972.

In summary, a lack of research related to innovation implementation and costs exists, particularly as the research relates to IGE, the most prominent educational innovation in elementary education today. Thus, the focus of this report "Development of a Cost Analysis Model which Schools May Use to Determine Budget Needs for Implementing Individually Guided Education (IGE)" is seen as a most relevant and needed research study.

Value

The results of the study should provide a method by which school officials can, with reasonable accuracy, estimate the change in expenditures needed to initiate and maintain the Kettering IGE program. The model should provide estimates of the various cost factors associated with IGE and could also be used to determine financial burden in a cost-effectiveness analysis study of an existing program. For schools currently using the program the study should provide a needed factor in an evaluation of its efficiency.

Any school district concerned with the cost/effectiveness of alternate instructional models should find the results of the study useful when considering adoption of the Kettering IGE program.

III. PURPOSE OF THE STUDY

The Problem

The primary purpose of the study was to develop a cost analysis model which schools may use to identify the various cost factors, which are directly associated with the implementation and continuation of the Kettering /I/D/E/A/ Model for Individually Guided Education (IGE). A secondary purpose of the study was to estimate expenditure changes due to the IGE program in the schools participating in the study.

More specifically the cost analysis model was structured so that it would provide answers to the following questions:

1. Have there been any additional implementation costs associated with IGE because of the type of school, i.e. urban, urban inner-city and suburban?
2. Have there been any exceptional start-up or continuous costs associated with IGE?
3. How much money has been expended for in-service training over and above that which is normally spent?
4. Do IGE materials cost more for in-service programs than funds normally expended for in-service materials?
5. Has there been an additional expenditure for the utilization of outside consultants because of IGE?
6. Have there been additional costs because of the employment of aides and/or new staff?
7. Has the cost for substitute teachers been changed because of the IGE program?
8. What have been the expenses related to released time for professional staff planning?
9. How have the funds associated with special education courses been incorporated into IGE programs?
10. Have there been unexpected costs over and above normal costs because of differences in instructional materials and equipment?
11. Have bookkeeping costs gone up because of IGE?
12. Have there been increased pupil management and information systems costs associated with the implementation of IGE?
13. Have there been additional costs associated with public relations because of IGE?
14. Have there been any additional costs for building modifications as a result of the IGE program?
15. Are there any additional costs as a result of the type of league?
16. Have the IGE schools used outside or extra funds to assist with the implementation of IGE?

Assumptions

Certain basic assumptions were inherent to conducting the study. These assumptions were:

1. There was a finite arbitrarily determinable and definable set of cost factors that could be associated with the implementation of the Kettering IGE program.

2. There was an identifiable cost estimate that could be associated with each identified cost factor.

3. Variations in the interpretation, identification, and definition of the cost factors could be minimized through the use of the combination of procedures of a self-reporting instrument, a personal interview with both the principal and budget officer where possible, and a site visitation of the school.

4. That the IGE schools participating in the study would provide the most valid data that they were capable of providing.

Delimitations and Limitations

1. The cost estimates were restricted to direct costs associated with the amount of expenditures and/or budget for IGE (both start-up and on-going) and the budget change for the school caused by IGE. The cost estimates were restricted to the general categories of staff development, instructional personnel, instructional materials, administration, public relations, physical plant and league participation. In addition, specific identifiable cost factors within each of the general categories were also costed out.

2. Because of the traditional line item approach of school accounting, precise cost factor data was difficult to obtain, thus in some instances the reported costs represented judgmental estimates at best.

3. There was a certain degree of variance in the cost factors dependent on any inconsistencies that might have existed in the interpretation and definition of the various cost factors, although it was felt that this had been minimized as the result of the procedures used.

4. The validity of the data reported in the study was subject to certain limitations as the result of the availability and type of data found in the participating schools and the validity of that data.

5. The study was subject to certain methodology limitations inherent as the result of its field study based approach. Notably, the ex post factor character of the study, the lack of precision in the measurement of field variables, and certain practical problems such as feasibility, cost, sample size, and time. All of these concerns are potential weaknesses of field study related research.[11]

6. The conclusions of the study were limited to the IGE schools from which the sample was drawn. Additionally, the conclusions were limited because of the newness of IGE in the participating schools. The schools were first and second year IGE schools and, therefore, were not yet at full implementation in regard to the 35 instructional implementation outcomes set forth by Kettering. Thus, the identified costs represented majority implementation costs but not full implementation costs.

Definitions

Clinical Workshop: A two-week in-service workshop conducted by an intermediate agency to train the principal and key teachers in IGE schools. The focus of this workshop is to develop local leadership and an in-depth understanding of the 35 IGE outcomes.

Clue-in: A one-day conference conducted by an intermediate agency to acquaint local educational agencies with the IGE change strategy and program.

Cost categories: The categories of staff development, instructional personnel, instructional materials, administration, public relations, physical plant, and league participation and their associated costs.

Cost factors: The specific factors within each of the cost categories and the costs associated with those factors. (e.g. clue-in, overview, clinical workshop, consultants, visitation of schools, professional staff, instructional aides, clerical aides, substitute teachers, resource center/library, teaching supplies, A.V. materials, and planning time).

IGE: The Kettering /I/D/E/A/ Individually Guided Education program.

IGE cost: Any change in expenditures or budget between pre-IGE program and IGE on-going program.

League: A group of two to fifteen IGE schools working cooperatively through an intermediate agency to achieve the 35 outcomes which define the IGE program.

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[11] Kerlinger, Fred. Foundations of Behavioral Research. New York. Holt, Rinehart and Winston, Inc., Second Edition, 1973, p. 408.

Model: Procedures and instruments that would be effective in determining the financial requirements for schools that change to the Kettering Individually Guided Education program.

On-going cost: Total expenditures or budget the second year of IGE.

Overview: A follow-up presentation to the Clue-in conducted by the intermediate agency in a school which has indicated a desire for additional information about IGE.

Start-up cost: Total expenditures or budget first year of IGE.

IV. PROCEDURES

The procedures section was organized into three basic sections: (a) design and sample, (b) instrument development and data collection, and (c) data analysis and reporting.

Design and Sample

The primary design of the research was a field based developmental study. The study was a pilot attempt to develop a cost analysis model which schools could use to identify the various cost factors directly associated with the implementation and continuation of the Kettering IGE program as they have been recorded in selected participating elementary schools utilizing the /I/D/E/A/ model. The study was conducted during the Spring of 1973.

To insure the applicability of the results of the study, a variety of types of schools presently operating the Kettering IGE program were requested to cooperate by supplying selected data. The cooperating schools were classified by league sponsorship and by the general nature of their enrollment, i.e. urban, urban inner-city, and suburban. The IGE schools selected for the study were from three different "Leagues" in a selected state in the Midwest. For confidentiality, the leagues were designated as Alpha, Beta, and Gamma. The Alpha league was sponsored by a city school board with membership limited to schools within the district. Both the Best and Gamma leagues were sponsored by education units of major universities.

A total of eight IGE schools were selected for the study. One urban school (A) and two urban inner-city schools (D and E) from the Alpha league participated. One urban school (B) and two suburban schools (F and G) from the Beta league participated and one urban school (C) and one suburban school (H) from the Gamma league took part. The five schools from the Beta and Gamma leagues were each members of different school districts.

TABLE 1. SUMMARY OF THE LEAGUE SPONSORING AGENCY AND SCHOOL TYPE OF THE EIGHT KETTERING IGE ELEMENTARY SCHOOLS PARTICIPATING IN THE COST ANALYSIS STUDY.

League	Urban	Urban Inner-City	Suburban
Alpha (City School Board)	A*	D,E	---
Beta (University)	B	---	F,G
Gamma (University)	C	---	H

*The letters A, B, C, D, E, F, G, and H denote the eight participating schools.

To further ensure the applicability of the results of the study, a complete description of each participating school was prepared. As stated by Bracht and Glass,[12] the researcher must be concerned with ecological external validity, i.e. the environment of the research. To ensure such validity, the first requirement is that the researcher provide a complete description of the operations and the research setting involved in the study. Thus, presented in Appendix B for each of the participating schools are narrative descriptions of (a) the structure for instruction prior to adopting the IGE system, (b) the neighborhood setting, (c) the physical facilities, (d) accomodations for IGE, and (e) some comments relative to the principal and his reflections toward IGE. In addition, two tables containing basic data relative to staffing patterns, enrollment, IGE units, grade levels, years of operation, percent of day IGE and budget per student were also enclosed in the same appendix.

[12]Bracht, Glenn and Glass, Gene. The External Validity of Experiments, American Education Research Journal, November, 1968, p. 438.

Originally, the intent was to also sample three non-IGE base schools, one located in the area of each "League" that would match the classification of "Urban", "Urban inner-city" and "Suburban" to be used as prototype schools for baseline data. Cooperation of only one such school was elicited and that was in the Alpha League and that school had been contaminated by spill-over from the other IGE schools in the district. Thus, it was decided to use the IGE schools as a base for themselves by gathering both pre- and post-IGE data on that school. It was also decided to identify some typical organizational structures of traditional schools to be used as a base and show the probable budget changes that would be necessary for that particular type of school to move to IGE.

Instrument Development and Data Collection

After the study participants were tentatively identified, a meeting was arranged with the facilitators and other representatives of the three "Leagues" to review a draft of the proposed data needs. Various general cost categories associated with the implementation of the IGE program and their corresponding cost factors were identified and discussed. In addition, a visitation was made to an IGE school and an interview held with the principal to further clarify the cost categories and cost factors. Based on the input of these discussions, a questionnaire requesting information on some seven cost categories and thirty cost factors attributable to IGE was developed. In addition, a background information section was also developed. Content reactions were then obtained from selected individuals considered to be experts on IGE. The questionnaire was then revised again.

The questionnaire was sent back to the facilitators of the three "Leagues" for their reactions again. Following a telephone conversation with the facilitators concerning their reactions, visits were made to each school in

the study and an interview held with the personnel responsible for supplying the requested information. This provided an opportunity for an even more complete explanation of the cost factors and an on-site visitation of the school. The instrument was left with the appropriate personnel along with a phone number which the individual responsible for completing the instrument could call if he experienced any difficulty with an item or needed an additional interpretation. A copy of the instrument is attached in Appendix C.

The data collecting instruments were returned to the study personnel within approximately three weeks after the final visit.

Data Analysis and Reporting

The data from the IGE schools was displayed in tabular form by cost categories and corresponding cost factors arranged according to the questions presented in the problem statement. This presentation of data is given in Section V. Based on the analysis of the data from the instrument, the observations obtained through visitation, and the personal interviews, a revised instrument which schools may use to identify the various cost factors which are associated with the implementation and continuation of the Kettering IGE Model was developed. This instrument is contained in Appendix D.

Based on the analysis of data, certain conclusions were arrived at. These conclusions are given in Section VI. Based on these conclusions, examples are shown of cost changes anticipated should a traditional school decide to move to an IGE program.

V. PRESENTATION AND INTERPRETATION OF DATA

The data presented in this section are organized and discussed according to the following sub-headings: (1) staff development, (2) instructional personnel, (3) instructional materials, (4) administration, (5) public relations, (6) physical plant, (7) league participation, and (8) supplementary funding. Included within each sub-heading are discussions and interpretations relating to start-up and on-going costs associated with each of the specific cost factors.

Because of an apparent homogenity within leagues as a result of common meetings and a common facilitator within that league, types of expenditures tended to be somewhat similar within the leagues. Thus, for ease of presentation a league format was basically followed in the discussion of the cost factors within each sub-heading. In addition, following each sub-heading data presentation discussion, a summary is presented relating specifically to the questions stated in the problem statement and the key issues and findings of that particular sub-heading.

Staff Development

The success or failure of a new instructional program rests heavily upon the preparation and commitment of the staff. An integral part of a properly initiated Kettering IGE instructional program is the pre-service and in-service training made available to the staff members. Some basic types of costs for staff development are e.g. release time for staff salaries, travel, materials, facilities, consultants and overhead.

The data in Table 2 show the costs reported by the different schools to prepare their staff to initiate an IGE program. Shown in Table 3 are the costs reported to provide continuing or in-service training for the staff.

TABLE 2. REPORTED EXPENDITURES OF EIGHT SCHOOLS FOR PRE-SERVICE PREPARATION OF STAFF TO ADOPT THE KETTERING IGE INSTRUCTIONAL MODEL.

Schools	Clue-in	Overview	Clinical Workshop	Other
Alpha league:				
Urban (A)	$ 0	$ 50	$10,500	$ 0
Urban inner-city (D)	0	50	12,000	0
Urban inner-city (E)	0	50	10,500	0
Beta league:				
Urban (B)	500	0	600	300
Suburban (F)	0	325	---	10
Suburban (G)	0	0	520	0
Gamma league:				
Urban (C)	0	0	---	0
Suburban (H)	1700*	0	---	800

*The $1700 represents a total figure for IGE workshops for school (H) rather than an expenditure only for clue-in.

The data from Table 2 show that reported expenditures for pre-service preparation for the IGE program ranged from zero expenditures in the Gamma league urban school (C) to $12,050 in the Alpha league urban inner-city school (E). The Alpha league schools each spent substantial sums on the clinical workshop phase of pre-service preparation. This was the phase involving a two-week in-service workshop conducted by an intermediate agency to train the principal and key teachers in the IGE schools to develop local leadership and an in-depth understanding of the 35 IGE outcomes. The substantial Alpha league clinical workshop cost was basically a participant salary and material cost. The $50 overview cost was for a Principal's Workshop.

For the Beta league the urban school (B) $600 clinical workshop costs consisted of a $3/day/teacher (10 days) cost. The other major expenditures

were $500 for clue-in which consisted of time--half day for teachers and full day for two central office staff--and $300 for visitation of schools. One hundred dollars of the clue-in costs was reported as an on-going cost. For the suburban school (F), the major expenditure was $325 for the overview which was basically a workshop cost. For the suburban school (G), the major expenditure was $520 for the clinical workshop which was a substitute teacher cost for the principal and four unit leaders to attend a five-day clinical.

For the Gamma league, the urban school reported no pre-service staff development costs. The suburban school (H) reported a major expenditure was $1700 for clue-in which actually included $200 for materials and $1500 for IGE workshops. School (H) also reported an $800 expenditure for in-service on Learning Styles and British Infant Schools. It should be noted here that clue-in as defined by school (H) implied IGE workshops which was a broader definition than that used by the other schools.

All of the pre-service type expenditures were reported as start-up or one-time costs except for $100 of the urban school (B) pre-service costs which were reported as on-going. It should also be pointed out that expenditure variations in some of the workshop activities such as the clue-in and clinical meetings were effected by travel needs to attend training sessions.

The data presented in Table 3 show a substantial on-going in-service preparation of staff expenditure pattern for the Alpha league. The expenditures ranged from $1644 to $2520 for pre-school and in-service type study workshops. The expenditure was primarily for staff salaries. The other major expenditures of $6000 were primarily for audio-visual and individualization materials.

The Beta league schools had very little expenditure for in-service training. The workshop expenditures that occurred were again primarily staff or substitute teacher costs. The material cost were primarily /I/D/E/A/ in-service material cost, visitation of schools did occur, but the school provided no additional expenditure for this. Typically, the school allotted a teacher two days a year for visitation. Little use was made of consultants. Additionally, urban school (B) did report a $576 professional books start-up expenditure.

The Gamma league schools had relatively large initial expenditures for workshops, but did not have an on-going program in this area. The $815 material expenditure was again for IGE in-service materials (e.g. tapes, filmstrips, cassette recording, and guides). Urban school (C) reported a $215 professional book expenditure and suburban school (H) a $148 professional book expenditure. The $980 other expenditure reported was for audio-visual equipment. The only expenditure reported as on-going was $225 for workshops by school (G). All other expenditures were reported as one-time costs.

Summary

The amounts reported in Tables 2 and 3 related to actual expenses for the IGE program. From the data presented, the only variations in IGE cost concerning pre-service or in-service preparation of staff evident between urban, urban inner-city or suburban schools were for in-service materials

TABLE 3. REPORTED EXPENDITURES OF EIGHT SCHOOLS FOR IN-SERVICE PREPARATION OF STAFF WHILE USING THE KETTERING IGE INSTRUCTION MODEL.

Schools	Workshops		Visitations		Consultants		Materials		Prof. Books		Other	
	Start-up	On-going	Start-up	On-going	Start-up	On-going	Start-up	On-going	Start-up	On-going	Start-up	On-going
Alpha league:												
Urban (A)	$1644	$1644	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Urban inner-city (D)	2050	2050	0	0	0	0	6000	6000	0	0	0	0
Urban inner-city (E)	2520	2520	0	0	0	0	6000	6000	0	0	0	0
Beta league:												
Urban (B)	600	0	0	0	0	0	0	0	576	0	0	0
Suburban (F)	0	0	0	0	0	0	10	0	35	0	0	0
Suburban (G)	225	225	0	0	0	0	554	200	0	0	0	0
Gamma league:												
Urban (C)	3404	0	0	0	1390	0	815	0	250	0	0	0
Suburban (H)	4000	0	0	0	150	0	0	0	148	0	980	0

and on-going workshops. For in-service materials the urban inner-city schools (E and D) averaged $6000 compared to $230 for the other schools and for on-going workshops the urban inner-city schools averaged $2285 compared to $312 for the other schools. However, it should be noted that this differential may be more of a school district in-service policy differential than an urban, urban inner-city, suburban differential especially since both urban inner-city schools were from the same district. Additionally, the differential may have been due to the availability of federal funds for the urban inner-city school.

Differences were evident among the different leagues. There appeared to be considerable homogenity of costs within leagues but some heterogenity of costs among leagues. These costs were more in terms of dollar amounts, though, than types of expenditures.

More specifically, in regard to the question of whether there have been any exceptional start-up or continuous costs associated with IGE the answer would be start-up cost, yes, and continuous costs, little, except for the urban inner-city schools. Most of the schools encountered start-up costs associated with the IGE workshops, both pre-service and in-service. The average pre-service IGE workshops expenditure was $4738 and the average in-service IGE workshop expenditure $1805. The only other major expenditure area was for in-service materials both IGE and audio-visual. The average expenditure was $1672 although this was largely influenced by the two urban inner-city schools with an expenditure of $6000 each. Excluding the two urban inner-city schools, the average was $230. One other cost factor related to in-service was professional books. Two urban and two suburban schools did report some expenditures for professional books.

In regard to the continuous costs or on-going cost, urban school (H) had $1644 in-service, urban school (B) had $100 pre-service, suburban school (G) had $425 in-service, the two urban inner-city schools (D and E) each had $8050 and $8520 respectively, in-service. Thus, the average was $2342 including the two urban inner-city schools and $362 when excluding them.

In answer to the question of an additional expenditure for the utilization of outside consultants because of IGE, the answer is essentially none. Only two schools both from Gamma league reported such costs. Urban school (C) reported $1390 and suburban school (H) reported $150.

In regard to the question concerning staff development expenditures over and above that which was normally spent, school officials were asked to indicate if the IGE expenditures were an "additional" budget item beyond that which was spent prior to IGE. None of the Alpha league school officials reported either their pre-service or in-service program expenditures as an addition to the normal budget to support the IGE instruction model. In the Beta league the urban school (B) indicated a budget increase of $100 because of the IGE pre-service program, and the suburban school (G) reported that the IGE program increased their budget annually by $225 for pre-school in-service workshops. The Gamma league schools did not report an increase in budget for staff development due to their IGE program.

Instructional Personnel

Approximately seventy percent of a school districts current operation budget is typically expended for the salaries of the instructional staff. Any planning for or evaluation of change in the organizational structure for instruction should investigate the impact on the budget of salary requirements. Officials from each of the eight schools in the study were asked to briefly

describe their pre-IGE staff organization for instruction, their current structure, and to estimate any cost changes. Instruction personnel included the amount of expenditures for such items as: unit leader, regular staff, aides, substitute teachers, planning time, professional books, and special education. Past data related to instructional personnel are presented in Table 4 and correspondingly basic data related to personnel types and numbers and enrollment are presented in Table 5.

None of the Alpha league school officials reported expenditures for staff salaries caused by the IGE program which created need for additional budget. The urban school (A) did pay $1200 for unit leaders--$300 per each of four unit leaders; $13,000 of start-up and on-going salary for four instructional aides; and $3250 as a new on-going salary for a clerical aide. These expenditures were not reported as new money needs but simply as redirected expenditures within the normal budget. In other words the expenditures would have occurred for needs under alternate programs. The two urban inner-city schools in Alpha league had redirected expenditures in their budgets similar to that of the urban school. There was no evidence of additional budget needs for personnel related to the use of the IGE program. The only difference was that there were four unit leaders and six instructional aides.

The urban school (B) in the Beta league listed expenditures for two instructional aides and one clerical aide but, as in the Alpha league, felt that it was not an additional cost by their IGE program. Both of the suburban schools in the Beta league paid their unit leaders an additional $300 in salary and interpreted this as an on-going cost due to the IGE program. Suburban school (F) reported no IGE expenditure for aides either instructional or clerical but did report that volunteer aides were being used to provide

TABLE 4. REPORTED EXPENDITURES OF EIGHT SCHOOLS FOR INSTRUCTIONAL PERSONNEL WHILE USING THE KETTERING IGE INSTRUCTIONAL MODEL

Schools	Prof. Staff		Inst. Aides		Cleri. Aides		Subt. Teach.		Plan. Time		Spec. Educ.	
	Start-up	On-going	Start-up	On-going	Start-up	On-going	Start-up	On-going	Start-up	On-going	Start-up	On-going
Alpha league:												
Urban (A)	$1200	$1200	$13000	$13000	$3250	$3250	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Urban inner-city (D)	1500	1500	19500	19500	3250	3250	0	0	0	0	0	0
Urban inner-city (E)	1500	1500	19500	19500	3320	3320	0	0	0	0	0	0
Beta league:												
Urban (B)	0	0	5040	5040	2520	2520	0	0	0	0	0	0
Suburban (F)	1800	1800	0	0	0	0	0	0	0	0	0	0
Suburban (G)	1200	1200	9004	9004	2141	2141	208	250	0	0	0	0
Gamma league:												
Urban (C)	1016	1016	12193	12193	0	0	1418	0	0	0	0	0
Suburban (H)	0	0	19782	19782	0	0	4382	0	1955	0	0	0

TABLE 5. REPORTED PERSONNEL AND ENROLLMENT DATA FOR THE EIGHT SCHOOLS PARTICIPATING IN THE KETTERING IGE INSTRUCTIONAL MODEL.

School	Teachers	Personnel Aides		Clerks		Student Enrollment*
		pd.	vol.	pd.	vol.	
Alpha league:						
Urban (A)	22	5	x	1	0	410 (4)
Urban inner-city (D)	34	6	x	1	0	596 (5)
Urban inner-city (E)	25.5	6	x	1	0	554 (7)
Beta league:						
Urban (B)	17	2	x	1	x	378 (3)
Suburban (F)	20	1	x	0	x	515 (4)
Suburban (G)	22	4	x	1	x	707 (5)
Gamma league:						
Urban (C)	20	6	x	0	x	475 (3)
Suburban (H)	22	6	x	0	x	650 (6)

*Following the student enrollment figures, the number enclosed in parentheses represents IGE units.

both instructional and clerical assistance and that there was one ADC paid instructional aide @ $2160. Suburban school (G) also attributed to the IGE program the costs of four instructional aides @ $9004 and one clerical aide @ $2141.

The two schools in the Gamma league (C and H) did not report additional instructional personnel expenditures related to the use of an IGE program. The urban school (C) staff was increased by four aides the year IGE was initiated but had started using aides previously and viewed this as a change which would have taken place regardless of the program. The urban school (C) did report however, a $1418 substitute teacher expenditure. The suburban school (H) officials specifically noted that their budget for staff was based on the same student/staff ratio as other non-IGE schools in the district, however, this did include six aides. The suburban school (H) reported a $148 professional book expense. Neither Gamma league school reported an expenditure for clerical aides although it was reported that volunteer aides provided clerical assistance.

Summary

Officials from two of the eight schools in the study interpreted increases in their expenditures as being directly caused by the IGE program format.. These new costs were attributed to the use of aides and additional salaries for unit leaders. Both of these schools were suburban and were members of the Beta league. It should be noted that neither of these schools previously used aides, instructional or clerical and did not recognize any form of head teacher for salary purposes. Five of the eight schools paid their head teachers an additional salary. Typical reimbursement was $300 per unit leader. The average instructional aide expenditure was $2875 per aide and the average

clerical aide expenditure was $2882 per aide. Typically, a school had from four to six paid instructional aides dependent on the number of units (the average was one paid instructional aide per unit or per approximately 120 students) and usually the school had one clerical aide.

Thus, it appeared that, "additional cost", for an IGE instructional staff was a function of the quality of the pre-existing organization independent of a specific program. A common element in staffing change for all of the eight schools was the additional use of volunteer aides. Assuming that the elements of community involvement and increased student/adult ratios are beneficial, it would appear that the format for IGE enriches the educational program. There was no evidence of change in the student/certified personnel ratio indigenous in an IGE program.

In regard to the substitute teacher question only three schools reported expenditures. Suburban schools (G and H) reported expenditures of $208 and $4382 and urban school (C) reported an expenditure of $1418. It must be remembered, though, that some substitute teacher costs were reported earlier in regard to pre-service and in-service workshops and the costs were imbedded into the workshop expenditures. Those schools that reported substitute teacher expenditures reported that the substitutes were primarily to release staff for planning sessions and workshops.

In regard to the question of additional costs incurred because of planning sessions, schools where no substitute teacher expenditures were reported, stated that planning sessions were handled by coming in one hour prior to school in the morning or closing off school earlier at the end of the day. One school and that was suburban school (H) reported a $1955 expenditure associated with planning time.

One other potential cost factor related to instructional personnel was special education. No school reported any change in personnel expenditures as the result of incorporating part or all of special education into the IGE program.

Instructional Materials

New instructional programs may call for a shift in emphasis on materials. The eight schools in the study were asked to supply estimates of changes in their budgets for materials because of the IGE program. Example types of materials could be classroom, resource center/library, teaching supplies or audio-visual materials. The corresponding expenditure data is reported in Table 6.

Alpha league school officials reported no changes caused by the IGE program in their budgets for materials. In the Beta league, suburban school (F) reported $6000 in start-up expenditures for their library and audio-visual materials. The other two schools in the league (B and G) did not report additional costs in the materials category.

The Gamma league urban school (C) officials claimed start-up expenditures of $1606 on library books and software and $135 on audio-visual equipment and materials and $3740 for classroom and teaching supplies. These were not reported as an IGE program cost, however, and would appear to be needed expenditures under any upgrading instructional program. The Gamma league suburban school (H) officials reported cost increases were for books, audio-visual materials and basic supplies for a new science program, although these costs again could not be associated directly with the adoption of the IGE program.

TABLE 6. REPORTED EXPENDITURES OF EIGHT SCHOOLS FOR INSTRUCTIONAL MATERIALS WHILE USING THE KETTERING IGE INSTRUCTIONAL MODEL

Schools	Classroom		Resource Center/Library		Teaching Supplies		Audio-Visual Materials	
	Start-up	On-going	Start-up	On-going	Start-up	On-going	Start-up	On-going
Alpha league:								
Urban (A)	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Urban inner-city (D)	0	0	0	0	0	0	0	0
Urban inner-city (E)	0	0	0	0	0	0	0	0
Beta league:								
Urban (B)	0	0	0	0	0	0	0	0
Suburban (F)	0	0	5000	0	0	0	1000	0
Suburban (G)	0	0	0	0	0	0	0	0
Gamma league:								
Urban (C)	3740*	0	1606	0	0	0	1135	0
Suburban (H)**	11718	0	7968	0	0	0	980	0

*The $3740 actually includes both the categories of classroom and teaching supplies.
**The indicated figures were incurred costs but not directly associated with IGE.

Summary

The only two clearly identified instances of additional expenditures for instructional materials incurred by adoption of an IGE program were not interpreted by school officials as costs unique to a specific instructional system. In the schools with the higher established budgets per student (see Appendix B, Table 11) there was less need for new supplies or equipment and more leeway for making expenditure decisions. Therefore, in summary, the data did not show any additional costs over and above those prior to IGE for instructional materials and equipment.

Administration

Questions concerning the additional costs of administering an IGE program were asked with reference to secretarial needs, program evaluation, and administration. These data are reported in Table 7. The Alpha league schools (A, D, and E) each claimed a $50 /I/D/E/A/ monitoring start-up and on-going expenditure. In addition, the Gamma league urban school (C) claimed a $125 start-up test instrument expenditure. None of the eight schools reported additional expenditure for these areas which could be identified specifically as an IGE program cost over and above normal cost.

Summary

Therefore, in regard to both the questions of whether bookkeeping costs have gone up because of IGE, and the question of whether there has been increased pupil management and information systems cost associated with the implementation of IGE--the data in this study indicated--no. It may have been possible though that there was additional clerical work but that it was being picked up by volunteer aides or clerical aides and not being classified as administration.

TABLE 7. REPORTED EXPENDITURES OF EIGHT SCHOOLS FOR ADMINISTRATION WHILE USING THE KETTERING IGE INSTRUCTIONAL MODEL.

Schools	Secretarial		Program Evaluation		Administration	
	Start-up	On-going	Start-up	On-going	Start-up	On-going
Alpha league:						
Urban (A)	$ 0	$ 0	$ 50	$ 50	$ 0	$ 0
Urban inner-city (D)	0	0	50	50	0	0
Urban inner-city (E)	0	0	50	50	0	0
Beta league:						
Urban (B)	0	0	0	0	0	0
Suburban (F)	0	0	0	0	0	0
Suburban (G)	0	0	0	0	0	0
Gamma league:						
Urban (C)	0	0	125	0	0	0
Suburban (H)	0	0	0	0	0	0

Public Relations

Since new instructional programs frequently require an increased communications effort with the school's patrons, it seemed advisable to check on new costs needs for public relations. Possible public relations expenditures could be a newsletter, visitations and/or parent coffees. The data corresponding to public relations expenditures are presented in Table 8.

Summary

None of the schools reported a significant amount of expenditure on public relations for the IGE program. It was obvious, though, that there were major differences in established public relations program. Therefore, a reported $75 for paper, printing, postage, and a "coffee" meeting in the Gamma league urban school (C) or the reported $180.50 for newsletter paper in the suburban school (H) were indications of special new program efforts but would be a routine, budgeted item in some of the other schools. In addition, several schools were initiating and carrying out certain non-cost public relation activities because of IGE such as PTA presentations on IGE, open houses and active solicitation of parent aides.

Physical Plant

The organization concept used in the IGE program involves the movement of students as they form into large and small instructional groups during the course of a school day. Areas to accommodate the various size groups, the physical plants arrangement for student movement, and facilities to support the program, such as media centers and teacher planning areas, were considered as possible cost items for schools with limitations in their building design. In addition, carpeting, lighting, and instructional equipment were also considered as cost factors under the physical plant category.

TABLE 8. REPORTED EXPENDITURES OF EIGHT SCHOOLS FOR PUBLIC RELATIONS WHILE USING THE KETTERING IGE INSTRUCTIONAL MODEL.

Schools	Public Relations	
	Start-up	On-going
Alpha league:		
Urban (A)	$ 0	$ 0
Urban inner-city (D)	0	0
Urban inner-city (E)	0	0
Beta league:		
Urban (B)	0	0
Suburban (F)	0	0
Suburban (G)	15	15
Gamma league:		
Urban (C)	75	0
Suburban (H)	180	0

Observations of available facilities in each of the eight schools participating were made by the study team and are reported in Appendix B. Data concerning costs of actual changes made in building structures considered necessary to the IGE program were reported on the survey instrument. From the observations of each school plant, reported in Appendix B and from cost data supplied by officials of each district and reported in Table 8 the following analysis was made of each school's plant.

The Alpha league had one school classified as urban and two as urban inner-city. On-site visitations with the building principals and data on written returns indicated that no capital outlay expenditures had been made to accommodate the IGE program. The structural design of the school buildings had not been changed or new furnishings added that would not have been desirable under the original program or probable alternate systems. Both of the inner-city schools of Alpha league appeared to be making maximum use of the spacious hallways and lobby-like areas in the older sections of their plant. The primary handicap noted, that related to building design, was student traffic problems caused by movement through the long double-loaded corridors of the additions made in the 1950's and 1960's.

The Beta league had one school classified as urban and two as suburban. Visitations with the principals and data from their written reports showed that only one of the schools and that was the suburban school (G) had made a modification in the building specifically to accommodate an IGE program. This change concerned the removal of a wall to provide more space for one of the units plus wall lighting and accoustical materials at a total cost of about $1500 with $500 being directly applicable to IGE.

The Gamma league had one urban and one suburban school take part in the study. Neither of the schools claimed or were observed to have made any cost

related adjustments in their facilities to accommodate an IGE program. The suburban school in Gamma league was opened in 1970. It was professionally planned for an open classroom technique of instruction. The appropriateness of its original design for many of the concepts utilized in IGE programs was unique among the school buildings studied.

Summary

Only one of the eight schools in the study claimed an expense for changing the physical plant to accommodate the IGE program. The reports of "no expenditures" on facilities for IGE programs did not mean that improvements had not occurred, but did reflect the opinion of school officials that any building changes or new furnishings would have been provided regardless of the type of instructional program used. Plants studied ranged in original construction dates from the early 1860's to 1970. Many of the original structures had one or more additions, typically of a totally different design.

The study team was impressed with the utilization of the large central lobby areas in the pre-civil war constructed urban school. Their use for instructional and display centers as well as allowing for unobtrusive student movement may have implications for planning school building designs.

It should be noted from the school plant descriptions in Appendix B that there were certain commonalities among the eight school plants. Each school had an instructional media center, large and small group areas, and teacher planning areas. Apparently, such facilities were considered desirable for virtually any modern instructional technique and were not seen as a cost unique to an IGE program.

League Participation

The costs of league participation are centered on the pro-rata salary and expenses of a facilitator, secretarial help, office rent, and supplies,

The Alpha league schools were all members of one city school district. The district provided a facilitator and other attendent needs. Costs for this were prorated at $3600 per school. This was not interpreted as an IGE program cost addition, however, since it was pointed out that the same expenditures would undoubtedly be made on any other type of program.

There were no reported costs for participation in the Beta and Gamma leagues. These leagues were sponsored by major universities and were operating without direct costs to the schools. The facilitator costs and certain in-service workshop materials costs were being subsumed by the university. Thus, depending on the funding arrangement between the university and the participating schools the league participation costs could vary considerably.

Supplementary Funding

There were certain implementation and continuation costs associated with IGE, particularly start-up types of expenditures. An immediate question was "Have the IGE schools any outside or extra funds to assist with the implementation of IGE?" In Table 9 are presented data relevant to this question.

As indicated by the data in Table 9, five out of the eight schools had start-up supplementary funding provided and three of the eight schools had some on-going funding provided. Thus, in summary a majority of the schools did have outside financial assistance, particularly the schools in the Alpha league which was the league where the school district was its own intermediate agency.

TABLE 9. REPORTED EXPENDITURES OF EIGHT SCHOOLS FOR PHYSICAL PLANT WHILE USING THE KETTERING IGE INSTRUCTIONAL MODEL

Schools	Space Modifications		Resource Center/Library**		Instructional Equipment**	
	Start-up	On-going	Start-up	On-going	Start-up	On-going
Alpha league:						
Urban (A)	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Urban inner-city (D)	0	0	0	0	0	0
Urban inner-city (E)	0	0	0	0	0	0
Beta league:						
Urban (B)	0	0	0	0	0	0
Suburban (F)	0	0	0	0	0	0
Suburban (G)	1500	500	0	0	0	0
Gamma league:						
Urban (C)	0	0	9580*	0	0	0
Suburban (H)	0	0	0	0	0	0

*Planned prior to commitment to IGE

** Some of the instructional equipment and resource center/library expenditures that were made were included in Table 5 under instructional materials.

TABLE 10. REPORTED SUPPLEMENTARY FUNDING OF EIGHT SCHOOLS IMPLEMENTING KETTERING IGE INSTRUCTIONAL MODEL

Schools	Supplementary Funding Start-up	Supplementary Funding On-going
Alpha league:		
Urban (A): ESEA I, Dept. of Public Education, NDEA Title III	$13500	$6000
Urban inner-city (D): ESEA I, Dept. of Public Education, NDEA Title III	10500	6000
Urban inner-city (E): ESEA I, Dept. of Public Education, NDEA Title III	15000	6000
Beta league:		
Urban (B)	0	0
Suburban (F)	0	0
Suburban (G)	0	0
Gamma league:		
Urban (C): Jennings Foundation, Title III	6150	0
Suburban (H): Wisconsin R & D, State, Title III	5130	0

VI. SUMMARY AND CONCLUSIONS

Presented in this section are a summary of the purpose and design of the study, conclusions drawn from the results of the study, examples illustrating cost changes anticipated should a traditional school move to an IGE program, and recommendations for further research.

Summary

The primary purpose of the study was the development of a cost analysis model which schools could use to identify the various cost factors which are directly associated with the implementation and continuation of the Kettering /I/D/E/A/ Model for Individually Guided Education. A secondary purpose of the study was to estimate expenditure changes due to the IGE program in the schools participating in the study.

The design of the research was developmental and field based in nature. The study was a pilot attempt in the development of a cost analysis model based on a structure which would provide answers to the following questions:

1. Have there been any additional implementation costs associated with IGE because of the type of school, i.e. urban, urban inner-city or suburban?
2. Have there been any exceptional start-up or continuous costs associated with IGE?
3. How much money has been expended for in-service training over and above that which is normally spent?
4. Do IGE materials cost more for in-service programs than funds normally expended for in-service materials?
5. Has there been an additional expenditure for the utilization of outside consultants because of IGE?
6. Have there been additional costs because of the employment of aides and/or new staff?
7. Has the cost for substitute teachers been changed because of the IGE program?
8. What have been the expenses related to released time for professional staff planning?
9. How have the funds associated with special education courses been incorporated into IGE programs?
10. Have there been unexpected costs over and above normal costs because of differences in instructional materials and equipment?

11. Have bookkeeping costs gone up because of IGE?
12. Have there been increased pupil management and information systems costs associated with the implementation of IGE?
13. Have there been additional costs associated with public relations because of IGE?
14. Have there been any additional costs for building modifications as a result of the IGE program?
15. Are there any additional costs as a result of the type of league?
16. Have the IGE schools used outside or extra funds to assist with the implementation of IGE?

To insure the applicability of the results of the study, a variety of types of IGE schools were requested. A total of eight IGE schools were selected for the study. The schools were from three different "Leagues" in a selected state in the Midwest and represented urban, urban inner-city, and suburban schools. The leagues were sponsored by a city school board and the education units of two major universities. The eight schools selected represented six different school districts.

The instrument development and data collection procedures consisted basically of a self-reporting instrument, personal interviews and on-site visitations. Expenditures associated with the implementation and continuation of the Kettering IGE program in regard to the following cost categories were identified: (1) staff development, (2) instructional personnel, (3) instructional materials, (4) administration, (5) public relations, (6) physical plant, and (7) league participation. Correspondingly the appropriate cost factors associated with each of the cost categories were identified.

The data from the IGE schools were displayed in tabular form by cost category and factor arranged according to the questions presented in the problem statement. A revised methodology and instrument which schools may use to identify the various cost factors which are associated with the implementation and continuation of the Kettering IGE model was developed.

Conclusions of the Study

The conclusions drawn from the results of the study were threefold: (1) the development of a cost analysis model which schools may use to identify the various cost factors which are directly associated with the implementation of the Kettering /I/D/E/A/ model for Individually Guided Education--the model is included in Appendix D, (2) estimation of expenditure changes due to the IGE program in the schools participating in the study--conclusions relating to the identified expenditures changes are presented below, and (3) illustrations of anticipated cost changes to implement IGE--examples illustrating anticipated cost changes should a traditional school move to an IGE program are included in the next section titled "Illustrative Cost Changes".

The questions stated previously as part of the problem statement provide the format for the presentation of the conclusions relative to expenditure changes for implementation and continuation of the IGE program in the schools participating in the study. The conclusions were as follows:

1. The only difference evident in regard to variance in IGE cost based on the classification of urban, urban inner-city, or suburban schools was for in-service. In-service materials for the urban inner-city schools averaged $6000 compared to $230 for the other schools and in-service on-going workshops averaged $2285 for the urban inner-city schools compared to $1312 for the other schools. It should be noted that this differential may have been more a school district in-service policy differential than an urban, urban inner-city, suburban differential; particularly, since there were only two urban inner-city schools and they both were from the same district.

Additionally, the differential may have been due to the availability of federal funds for the urban inner-city school.

2a. Most of the schools encountered start-up costs associated with the IGE workshops both pre-service and in-service. The average pre-service IGE workshops expenditure was $4738 and the average in-service IGE workshop expenditure $1805. The other major expenditure area was in-service material, IGE and audio-visual. The average expenditure was $1672 although this was largely influenced by the two urban inner-city schools with their expenditure of $6000. Excluding the two urban inner-city schools the average was $230. One other cost factor related to in-service was reported and that was an expenditure for professional books. The average expenditure was $126.

2b. The schools experienced little continuous total staff development costs associated with IGE except for the urban inner-city schools. The average was $2342, the two urban inner-city schools being the major contributor again as the result of the in-service materials. Excluding the two urban inner-city schools the average was $362.

3a. The average staff development expenditure over and above that which was normally spent prior to IGE was $41 with only two schools reporting any IGE expenditures that were "additional" budget items beyond that which was spent prior to IGE.

3b. It appeared that schools with basic budgets were more apt to report expenditures for IGE as being unique to that program and schools with more adequate budgets interpreted many IGE expenditures as simply a matter of choice.

4. No material costs for in-service programs for IGE beyond that normally expended for in-service materials were reported. There were some IGE in-service material expenditures (see conclusion 2a) but they were not considered to be "additional" budget items beyond that which was spent prior to IGE.

5a. The additional expenditure for the utilization of outside consultants was small. Only two schools reported such cost--an urban school reporting $1390 and suburban school $150.
5b. No expenditures were reported due to school visitations.

6. Five of eight schools reported a head teacher reimbursement of $300 per unit leader. Three schools reported no head teacher reimbursement. The average instructional aide expenditure was $2875 per aide and the average clerical aide expenditure was $2882 per aide. Usually a school had from four to six paid instructional aides and one clerical aide. Two of the eight schools in the study interpreted additional personnel increases in their expenditures as being directly attributed to the use of aides and additional salaries for unit leaders. There was no evidence of change in the student/certified personnel ratio indigenous to an IGE program. A common element in staffing change for all of the eight schools was the additional use of volunteer aides.

7. Three schools reported substitute teacher expenditures. Two suburban schools reported expenditures of $208 and $4382 and an urban school reported an expenditure of $1418. Thus, the average expenditure for substitute teachers was $751. Those schools that

reported substitute teacher expenditures were primarily to release staff for planning sessions and workshops.

8. One school reported a $1955 expenditure associated with planning time. Usually if an additional expenditure existed for planning time, it involved substitute teachers; thus, the expenditure would be included in the substitute teacher expenditure (see conclusion 7). Typically, no additional expenditures were reported for planning sessions.

9. No school reported any change in expenditures as the result of incorporating part or all of special education into the IGE program.

10. The only two identified instances of additional expenditures for instructional materials incurred by adoption of the IGE program were not interpreted by school officials as costs unique to a specific instructional system. A suburban school had reported $6000 in start-up expenditures for their library and audio-visual materials and an urban school had reported some $1606 on library books, $135 on audio-visual equipment and materials and $3740 for classroom and teaching supplies. These were not reported as an IGE program cost, however, and would appear to be needed expenditures under any upgrading instructional system. Therefore, in summary, the data did not show any additional costs over and above those prior to IGE for instructional materials and equipment.

11. No additional secretarial or administrative bookkeeping costs were reported associated with IGE. It may be possible though that there was additional clerical work and that it was being picked up

by volunteer aides or clerical aides and not being classified as administration.

12. An average of $34 per school was claimed for program evaluation monitoring and test instrument expenditure. None of the eight schools reported additional expenditure for these areas, though, which could be identified specifically as an IGE program cost over and above normal cost.

13. Three schools reported expenditures on public relations for the IGE program although several schools were initiating and carrying out certain non-cost public relation activities because of IGE such as PTA presentations on IGE, open houses and actual solicitation of parent aides. The average expenditure per school for public relations was $34.

14a. Only one of the eight schools in the study claimed an expense for changing the physical plant to accommodate the IGE program and that was the removal of a wall. The reports of "no expenditure" on facilities for IGE programs did not mean that improvements had not occurred, but did reflect the opinion of school officials that any building changes or new furnishings would have been provided regardless of the type of instructional program used.

14b. It was noted that certain commodities existed among the eight school plants. Each school had an instructional media center, large and small group areas, and teacher planning areas, although some operated on a more limited basis. Thus, it appeared that while the Kettering IGE program can function in a wide variety of school plant

designs (see Appendix B for school plant descriptions), it is desirable to have buildings which provide certain types of areas for IGE. The semi-open classroom concept located around a large central area appeared to be most appropriate for IGE activities.

15a. There were no reported costs for the school for participation in the university sponsored league. The facilitator costs and certain in-service workshop material costs were being subsumed by the university. Thus, depending on the funding arrangement between the university and the participating school, the league participation costs could vary.

15b. For the city school district league the costs were prorated at $3600 per school. This was not interpreted as an IGE program cost addition, however, since it was pointed out that the same expenditures would undoubtedly be made on any type of program. In summary, the use of college or universities to sponsor leagues potentially had a financial advantage but did provide for possible unstable administration with weak decision-making powers.

16. Five out of the eight schools had start-up supplementary funding provided and three of the eight schools had some on-going funding provided. The average start-up funding was $6285 and the average on-going funding was $2250. Therefore, in summary, a majority of the schools did have outside financial assistance particularly the schools in the city school district sponsored league.

Illustrative Cost Changes

Included in this part are two illustrations showing anticipated cost changes should a traditional school move to an IGE program. As a basic premise to identifying the cost of implementing IGE, it appeared that schools with basic budgets were more apt to report expenditures for IGE as being unique to that program and schools with more adequate budgets interpreted IGE expenditures as simply a matter of choice. Therefore, as a basis for the illustrations the following two suburban schools with approximately 550 pupils each will be used:

School X: Low expenditure per pupil (approximately $700). A self-contained, graded school with no previous experience with any of the concepts of IGE, e.g. team teaching, non-gradeness, continuous program, or unit leaders. No paid instructional or clerical aides or volunteer aides. The physical plant has a self-contained room structure with a multi-purpose room and library. Very little interest in IGE on the part of the staff.

School Y: High expenditure per pupil (approximately $1100). A self-contained, graded school which has been experimenting with the concepts of team teaching, continuous progress, and unit leaders. Two paid instructional aides and a paid clerical aide. No volunteer aides. The physical plant has a self-contained room structure with a large, carpeted and well-equipped media center. High interest in IGE on the part of the staff.

Described in Table 11 are best judgment data on the part of the study team. The data illustrate an average anticipated cost of implementing the Kettering IGE model in hypothetical Schools X and Y. It should be cautioned, though, that these data are not to be interpreted as required fixed costs, but as estimates based on averages. For any local school application, the data would be additionally subject to local decisions, trade-offs, and final level of development desired.

The anticipated start-up cost in School X would be approximately $17,392 or $32/pupil. In addition, there may be instructional material and equipment, and physical facility costs dependent on both the present status and the final level of development desired. The anticipated start-up costs in School Y would be approximately $1928 or $17/pupil.

In School X the approximate on-going costs would be $362 in-service, the instructional personnel costs $12,720 (staff and aides), and a $62 program evaluation cost, which would total approximately $13,644 or $24/pupil. Optionally, there may be a $500 capital outlay cost, again dependent on current status and final level desired. In School Y the approximate on-going costs would be the two additional instructional aides ($5760 or approximately $10/pupil) although the school would probably report that this would have been a normal request in regular program development and not an additional budget item due to IGE. The same would probably be true for the pre- and in-service costs, both start-up and on-going. The other possible request in School Y would probably be a need for additional large instructional space which would mean the removal of one wall. Thus, the major expenditure is seen to be start-up costs. Schools X and Y would probably be looking for some $5000 to $10000 supplementary funding from an outside agency and to help defray the start-up costs.

Several other comments are appropriate at this point. Because School X has had little previous experience with team teaching, ungradedness, and grouping, some of the basic concepts underlying IGE, the opinion of the study team is School X should spend one year in researching and studying IGE prior to beginning implementation. If either of the two hypothetical schools are of the long corridor type rather than a school with large central areas and

TABLE 11. ILLUSTRATIVE COSTS FOR SCHOOL X AND SCHOOL Y IN IMPLEMENTING THE KETTERING IGE MODEL

Cost Factor	School X	School Y
Staff Development		
Pre-service (Clue-in, Overview and Clinical workshop)	$ 1500	$ 1500
In-service (Workshops)	1805	1805
(Materials)	230	----
(Visitation and Consultants)	192	----
(Professional Books)	126	63
Instructional Personnel		
Staff (4 leaders @ $300)	1200	----
Aides (4 instructional and clerical @ $2880)	11520	(2 inst. @ $2880) 5760
Substitute Teacher	751	----
Instructional Materials (Classroom, Resource Center/Library Teaching Supplies and AV materials)	5000*	----
Administration (Secretarial, Program evaluation, and Administrative)	34	----
Public Relations (Newsletter, Visitation and Parent coffees)	34	----
Capital Outlay (Space Modification, Resource Center/ Library, and Instructional Equipment)	1500*	----
League Participation (Variable depending on sponsoring agency, probably ranging from $0 to $3600 per school)		

*Optional, dependent on status of present instructional materials and equipment and physical facilities.

wide halls, there will be some problems regarding unit activities and unit interaction because of traffic flow.

Again, it should be noted that the data presented were based on a very limited sample and thus should be interpreted as such. Complete descriptions of each of the eight schools participating in the study are presented in Appendix B. Thus, if a school is contemplating implementing the Kettering IGE model, that school might identify with one of the schools utilized in the study and look at their specific costs in addition to the data presented on the two hypothetical Schools X and Y and the summary data presented in the conclusions section.

Recommendations For Further Research

The evidence from this study concerning the cost of the implementation and continuation of the Kettering IGE program suggested the following recommendations for further research:

1. The study needs to be replicated with the revised instrument across a larger and more nationally geographically represented sample. Possible stratification variables that should be considered for inclusion are "league", school size, and expenditure/pupil.

2. The refined data instrument generated by this study should be utilized by schools using or considering an IGE program, as a factor in their accountability program.

3. The relative educational value of the IGE program should be studied so that a cost/effectiveness measure can be determined.

4. Specifications should be developed for ideal school buildings to accommodate an IGE program. An efficiency scale might accompany such a design describing the handicaps of omissions from the optimum facility.

5. Further study is needed in the area of program accounting to better identify precise cost data relative to the configuration of human and material resources necessary for program implementation particularly as related to the implementation of IGE.

APPENDIX A

INSTRUCTIONAL OUTCOMES

APPENDIX A

Instructional Outcomes

1. All staff members have had an opportunity to examine their own goals and the IGE outcomes before a decision is made to participate in the program.

2. The school district has approved the school staff's decision to implement the /I/D/E/A/ Change Program for Individually Guided Education.

3. The entire school is organized into Learning Communities with each Learning Community composed of students, teachers, aides, and a Learning Community leader.

4. Each Learning Community is comprised of approximately equal numbers of all age groups in the school. (ages 10-19)

5. Each Learning Community contains a cross section of staff.

6. Sufficient time is provided for Learning Community staff members to meet.

7. Learning Community members select broad educational goals to be emphasized by the Learning Community.

8. Role specialization and a division of labor among teachers are characteristics of the Learning Community activities of planning, implementing and assessing.

9. Each student learning program is based on specified learning objectives.

10. A variety of learning activities using different media and modes are used when building learning programs.

11. Student learning takes place with Learning Community members except when special resources are required.

12. The staff and students use special resources from the community in learning programs.

13. Learning Community members make decisions regarding the arrangements of time, facilities, materials, staff, and students within the Learning Community.

14. Students and teachers are involved in continuous assessment of learning programs using a variety of techniques.

15. The following are considered when students are matched to learning activities:

    Peer relationships
    Achievement
    Learning styles
    Interest in subject areas
    Self-concept

16. Each student has an advisor whom he or she views as a warm, supportive person concerned with enhancing the student's self concept; the advisor shares accountability with the student for the student's learning program.

17. Each student (individually, with other students, with staff members, and with his or her parents) plans and evaluates his or her own progress toward educational goals.

18. Each student accepts increasing responsibility for selection of his or her learning objectives.

19. Each student accepts increasing responsibility for the selection or development of learning activities for specific learning objectives.

20. Each student can state learning objectives for the learning activities in which she or he is engaged.

21. Each student demonstrates increasing responsibility for pursuing her or his learning program.

22. There is a systematic method of gathering and using all information about a student which affects his or her learning.

Self-Improvement Outcomes

23. The school is a member of a League of schools implementing processes and participating in an interchange of personnel to identify and alleviate problems within the League schools.

24. The school as a member of a League of IGE schools stimulates an interchange of solutions to existing educational problems plus serving as a source of ideas for new development.

25. Staff members are responsive to one another's needs, trust one another's motives and abilities, and have developed the techniques of open communication, thereby leading to an effective working relationship.

26. The Program Improvement Council analyzes and improves its operations as a functioning group.

27. The Program Improvement Council assures continuity of educational goals and learning objectives throughout the school and assures that they are consistent with the broad goals of the school system.

28. The Program Improvement Council formulates school-wide policies and operational procedures and resolves problems referred to it involving two or more Learning Communities.

29. Students are involved in decision-making regarding school-wide activities and policies.

30. The Program Improvement Council coordinates school-wide in-service programs for the total staff.

31. Open communication exists between parents, students, staff, and the community.

32. The Learning Community analyzes and improves its operations as a functioning group.

33. Teacher performance in the learning environment is constructively critiqued by members of the Learning Community using both formal and informal methods.

34. Decisions regarding the planning of learning programs for the Learning Community in general and for individual students are constructively critiqued by members of the Learning Community.

35. A personalized in-service program is developed and implemented for each Learning Community staff member.

APPENDIX B

BASIC BACKGROUND DATA

and

SCHOOL DESCRIPTIONS

TABLE 12. BASIC DATA CONCERNING THE EIGHT SCHOOLS PARTICIPATING IN THE IGE PROGRAM COST STUDY

School	Enrollment	IGE Units	Grade Levels	Years of Operation	Percent of Day	Budget per Student
Alpha league:						
Urban (A)	410	4	1-5	2	30/50	$1058
Urban inner-city (D)	596	5	1-5	2	50/100	1058
Urban inner-city (E)	554	7	K-5	2	50/100	1058
Beta league:						
Urban (B)	378	3	K-6	1	100	1069
Suburban (F)	707	5	1-4	2	75	552
Suburban (G)	515	4	K-6	1	100	698
Gamma league:						
Urban (C)	475	3	1-5	2	60	750
Suburban (H)	650	6	K-5	2	100	825

URBAN SCHOOL (A)

League-Alpha

Prior to the adoption of the IGE program, school A was a K-8 school with a traditional structure in most classrooms. The "Primary" plan was used for a few years but did not prove to be successful. Sixth, seventh, and eighth grades were departmentalized prior to the 1971-72 school year. The pupil/teacher ratio has been approximately 28-30 to one for a number of years. Teachers did not have clerical help until the adoption of the IGE program. Teacher units were non-existent prior to IGE. A nurse, a speech therapist, a psychologist and subject area consultants have been available on a part-time basis for many years. A resident counselor was added to the staff some six years ago. The IGE program was introduced during the 1971-72 school year to grades 1-5 reaching about 30 percent development.

Presently, school A is a K-5 urban second year IGE school of 500 pupils. The student population was primarily white with only 36 blacks. The neighborhood was mostly residential and had been a middle socio-economic white but was steadily declining to a low socio-economic white. The school site was located adjacent to a five-acre city park which the principal viewed as a mixed blessing. He felt the school was vandalized often by people using the park particularly in recent years.

The plant consisted of the original building built in 1929, a three-story well-maintained structure plus a major addition joined to the original building in 1953 and a second addition built in the 1960's. The 1953 addition contained the administrative offices. It was a single story, double-loaded corridor design. The corridors were windowless but the classrooms utilized much glass. The 1960 addition was a two-story design but otherwise was

similar to the 1953 section. Tile floors and long closed halls added to noise problems when students were moving between rooms. The functional capacity of the plant was about 700 students but with declining enrollments presently housed 500.

There was no evidence of special provisions being made in the facilities to accommodate IGE other than work areas for unit members. Each of the four IGE units had an extra classroom available for planning activities. The only large space area was a multi-purpose room. The greatest handicap of the building design was traffic flow. In regard to instruction a full-time curriculum facilitator was added to the staff although this person had been requested prior to IGE.

The principal has been at the school for 21 years. In general he did not show as much enthusiasm for IGE as some of the other principals visited.

URBAN SCHOOL (B)

League-Beta

During 1969-70 school B was a traditional school in a very old building. All teachers taught with their doors closed. There were no paid aides nor any volunteer aides. During 1970-71 the non-graded concept was started with the 6-12 year old students reaching about half-time spent in non-graded team teaching with the continuous progress concept. During 1971-72 the concept reached 100 percent and the 5-12 year old students were included.

Presently, school B is a K-6 urban first year IGE school of 375 pupils located in a school district in the fringe of a large metropolitan city. The student population was primarily white and low socio-economic. The district was 2 by 1 1/2 miles; had 1,400 students; land area was saturated with housing and industry; high tax base due to industry; low tax rate; recently lost bond issue probably due to the low socio-economic class and a heavy parochial school element. Eight to $10,000 was average family income and three parochial schools were located in the district. The district had 2 elementary, 1 middle and 1 high school. The school was built in the early 1860's with an addition in 1913. It was scheduled to be razed during the summer of 1973. The school was a three-story brick structure plus a walkout basement area. Efforts to maintain the structure were obvious but aging was evident in wall cracks, creaking floors, and restricted use of an auditorium stage in the 1913 addition due to weak floors. In short, the building appeared to be unsafe.

The first and second floors had large central areas each with four self-contained classrooms located on the perimeter. The classrooms for each unit were well located for unit interaction and traffic flow. The first floor had a teacher work area corresponding to the offices area which was on the

second floor. The third floor had a carpeted and well-maintained media center, a special education homeroom, and a speech therapy laboratory.

In spite of building restrictions, morale seemed high and strong support from parents for the program was claimed. The principal was quite enthusiastic about the IGE program. He has been principal in the school for several years.

URBAN SCHOOL (C)

League-Gamma

School C was a self-contained, graded school prior to initiating the IGE program. There was limited departmentalization in the intermediate grades. The pupil/teacher ratio was 28 to one with two aides assigned to the library and playground supervision. The teaching staff was supported with special area teachers in music, physical education, remedial reading, librarian, speech therapist and school psychologist. The physical plant was a self-contained room structure with a multi-purpose room and media center. The IGE program was introduced during the 1972-73 school year in Language Arts and Mathematics to grades 1-5 reaching about 60 percent development.

Presently, school C is a K-5 urban first year IGE school of 475 pupils located in a school district in the fringe of a large urban city. The student population was all white and the neighborhood was primarily white Appalacia and low socio-economic. The district had a low tax base and the families were primarily blue-collar workers.

The school was a single-story structure built in the early 1950's. All classrooms were self contained but seemed adequate in size and were well maintained. There have been no changes in the building's structure to accommodate IGE, but there is a request to remove two walls to provide some large areas. Tile floors and long corridors presented traffic pattern and accoustical problems for normal unit activity. The only large space area was an all-purpose gym-lunchroom. There was a separate team room for planning for teachers and aides. A carpeted instructional materials center was provided and centrally located.

The principal was enthusiastic about the IGE program and indicated good parental support. He has been principal in the school several years.

URBAN INNER-CITY SCHOOL (D)

League-Alpha

Prior to IGE, school D housed from kindergarten to eighth grade. Classes were basically self-contained with departmentalization of the seventh and eighth grade levels. The pupil/teacher ratio was approximately 32 to one. There were no clerical aides and no formal organization of teaching units. Physical facilities were and are now somewhat inadequate. The IGE program was introduced during the 1971-72 school year to all grade levels reaching about 50 percent development.

Presently, school D is a K-5 Title I urban inner-city second year IGE school of 550 pupils. The student population was 30 percent black and 70 percent white. The neighborhood was low socio-economic and somewhat industrial, although it was a very stable neighborhood with many of the families (both black and white) having lived and worked there some 20-30 years.

The building was a two-story plus basement structure built about 1898 with an addition in the 1930's. The 1898 section had had some renovation to provide an attractive, carpeted entrance. The renovation occurred prior to the introduction of the IGE program. The first floor corridor was carpeted, ceilings lowered, and modern lighting provided. In general, the corridors were large and provided for good traffic flow. The exception was the second floor of the 1898 building which was poorly lighted, high ceilings, and generally run down. The classrooms were all of a self-contained nature but seemed adequate in size and were adequately maintained. Three portable classrooms were also located on the school grounds.

The only large space area was an all-purpose gym-lunchroom on the first floor level in the 1930's addition. Unit planning space was limited. The

classrooms for each unit were well located for unit interaction and traffic flow, especially in the 1898 section. A large media center was located on the first floor and in good condition. It was carpeted, good lighting and was well equipped.

The principal was enthusiastic about the IGE program and felt it had contributed to increased parental support for the school. He attributed a decline in vandalism to improved student attitudes. The principal was in his first year at the school but had been a principal for several years at another inner-city school.

URBAN INNER-CITY SCHOOL (E)

League-Alpha

Before the implementation of the IGE program, school E's instructional program and organization was formal (traditional). The K-6 program was in self-contained classrooms, and the seventh and eighth grades were departmentalized. The pupil/teacher ratio was 27.5 to one. Only one paid aide was employed and that for an extremely high pupil-teacher ratio in Kindergarten. No clerical assistance was available for the teachers except that of the administrative clerical staff. Supportive staff included a principal, assistant principal, and a counselor all available full time. A nurse, speech therapist, and psychologist and subject area consultants from the Central Office were available on a part-time basis. The school's physical facilities have been inadequate for several years. The third grade has been housed in facilities outside the main building. The IGE program was introduced during the 1971-72 school year to grades 1-5 reaching about 50 percent development.

Presently, school E is a K-5 Title I urban inner-city second year IGE school of 700 pupils with the kindergarten students housed in nearby rented space. It was in an economically declining neighborhood--30 percent of the students were from ADC families and the racial pattern for both students and faculty was approximately 40 percent black. The housing was mostly single-family dwelling with a high percentage of single-parent families. The neighborhood was located quite near the downtown area of the urban center.

The school plant consisted of an original three-story structure built in the early 1900's plus a 1960 classroom and administrative offices area and a second addition in 1965 of a gym and teacher lounge area. The older section had a large central hall area with classrooms on the perimeter. The

central hall area was much utilized as an activity and learning area. There were also several small closets in this section which were utilized for small group activities. A small classroom has been converted to a media center. The classrooms in the older section had wooden floors. The two additions had tile floors. There was no carpeting in any of the rooms although there was talk of carpeting the large central hall area in the older section. There was no evidence of any structural changes to accommodate IGE. The physical plant seemed well maintained. The building design of long corridors opening into classrooms found in the building additions seemed less suitable for teaming and unit activities than did the large central hall construction of the original plant. Basically, all classrooms were of the self-contained nature. The only large space area was an all-purpose gym-lunchroom in the 1965 addition and the large central hall in the older section.

The principal was enthusiastic about the IGE program and morale seemed quite high in the school. The principal has been at the school for several years.

SUBURBAN SCHOOL (F)

League-Beta

During 1970-71 school F was a traditional self-contained school. The pupil/teacher ratio was 28 to one. There were no aides or supporting services. The physical facilities did include a music room, library, and gymnasium. During 1971-72 the individually guided concept was started in grades 1-2 reaching about 80 percent development and during 1972-73 in grades 3-4 reaching about 65 percent.

Presently, school F is a K-6 suburban first year IGE school of 845 pupils. The student population was primarily white and from a wide socio-economic range although a large number were from lower-middle working class families. The surrounding neighborhood was somewhat rural in nature as the school was located at the edge of an urban city.

The building was a two-story brick structure plus basement built in 1937 with an addition in 1954. In general, the building was in need of maintenance and repair. Several windows were broken, walls were in need of paint, corridors were dark with poor lighting and generally the building was in a run-down condition. The classrooms were all of a self-contained nature but seemed adequate in size. The floors were tile. Because of the country-like setting of the school, there was an exceptionally large playground area.

Large space areas consisted of a gymnasium, a cafeteria and a media center where a wall had been removed. The cafeteria was utilized for large group instruction activities. The media center was an exception in terms of condition as it was large and in good condition, carpeted, paneled, and good lighting as it had just recently been remodeled. Planning areas for teachers were essentially non-existent. For the most part, the unit staffs met in

the halls. The classrooms for each unit were grouped as much as possible to minimize traffic flow and allow for unit interaction.

The principal was in his first year at the school and was enthusiastic and excited about the IGE program. He indicated that parental support for the program was very good. He had had several open houses. Many parents were actively involved in the school as volunteer aides and many others had visited the school. The principal seemed to take pride in the parental involvement and encouraged it.

SUBURBAN SCHOOL (G)

League-Beta

Prior to the adoption of the IGE program, school G had a K-6 self-contained traditional styled organization with some departmentalization at grades 5-6. The program was housed in two buildings five miles apart and still is today. K-4 is housed in a 1912 building with twelve classrooms and grades 5-6 in a 1969 building with six classrooms. The pupil/teacher ratio was 42.1 to one for the K-4 arrangement and 23.56 to one for grades 5-6 and no aides. Supporting services included art, music, physical education, one-half day psychologist, one-half day speech and one-half day remedial reading. The staff researched individualization quite extensively for one year prior to moving into IGE. The IGE program was introduced during the 1972-73 school year to grades K-6 reaching close to 100 percent development.

Presently, school G is a K-6 suburban first year IGE school of 515 pupils. The student population was primarily white and from a wide socio-economic range although a large number were from a lower-middle class. The surrounding neighborhood was somewhat rural in nature as the school was located a couple of miles out from an urban center with the students being bussed. The urban center was primarily a college community.

The K-4 building was a two-story plus basement brick structure built in early nineteen hundred. The facilities were somewhat inadequate although quite well maintained. The classrooms were all of a self-contained nature but seemed adequate in size. One wall had been removed to provide room for some large group instruction. The halls were wide, thus allowing for good traffic flow. The classrooms for each unit were grouped to allow for unit interaction. The media center was carpeted and in good condition.

The principal was quite enthusiastic and proud about the IGE program and morale seemed very high in the school. The principal has been at the school for several years.

SUBURBAN SCHOOL (H)

League-Gamma

Prior to IGE, the students in school H were in temporary housing with a traditional structure in most classrooms. With the advent of a new building, in January of 1970 a nucleolus of staff was identified who researched multi-age grouping, differentiated staffing, multi-media and use of open space. The decision was made to incorporate these components as a means of facilitating individualization. The students were moved into the new open-space structure in October of 1970. The pupil/teacher ratio was 30.3 to one and no aides. IGE was begun during the 1970-71 school year but without the label.

Presently, school H is K-5 suburban second year IGE school of 650 pupils. The student population was primarily white and from upper-middle class homes. The neighborhood was relatively new having developed within the past decade and was typified by middle management type families with strong concerns for the school system. There were rumblings of discontent with the school's program from the parents.

The building was newly opened in 1970. It was circular in design and a model of the open-space concept. It had been planned from educational specifications prepared by teachers, local administrators, and the school board. University personnel and architects served as consultants to the local committee. The building was constructed to accommodate 570 students. In 1972-73, 650 students were enrolled.

The school was fully carpeted with special color coded areas for the respective units and appeared completely equipped. The circular design of the school provided good traffic flow both within and between units. Special areas included a media center, music room, and gymnasium. Moderate

overcrowding of the learning areas in the open space school appeared to magnify some problems caused by a lack of visual and acoustical privacy. Lunches were packaged at a central kitchen and served in the learning areas.

The principal was enthusiastic about the program and the facilities. He was involved in planning the building and was the only person to serve as principal. His major concern was a failure to communicate the philosophy of the school's program to the parents. Opposition to the school's program was becoming intense.

APPENDIX C

ORIGINAL INSTRUMENT

COST ANALYSIS QUESTIONNAIRE
(I.G.E.)

The purpose of the following questions is to obtain a profile of the cost change experienced by a school when they have converted to the I/D/E/A I.G.E. program. Please feel free to qualify your answers or contribute any cost items which you feel have been overlooked.

Part A - Background Information

1. Briefly describe the structure for instruction prior to adopting the I.G.E. system in terms of: pupil/teacher ratio, pupil/teacher aide ratio but not including student teachers, clerical/teacher ratios, organization of teaching units, supporting services, and physical facilities. (Use back if necessary.)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

2. What is the budget per pupil of your school? _____

3. A. What is the total pupil enrollment in the I.G.E. program? _____; how many I.G.E. units in your school? _____; how many teachers? _____; how many aides? _____; how many clerks? _____.

   B. Do you use volunteer personnel (e.g., aides or clerks)? How many and what type? _____.

4. How many years has I.G.E. been in operation in your school:
   Units in 1970-71 _____; 1971-72 _____; 1972-73 _____.

5. What has been the degree of development by year of your program in terms of percent of the pupils school day and by grade level?

	Percent School Day	Grade Level
1970-71		
1971-72		
1972-73		

Part B - Cost Items

The following questions are designed to obtain the amount of expenditures and/or budget for an I.G.E. program (both start-up and on-going) and the budget change for the school caused by I.G.E. (I.G.E. cost).

In addition to the cost item dollar expenditure it is requested that an explanation or description of the major types of expenditure making up the cost item also be included. Please be as explicit as possible. It is recognized that value judgments could be involved in some of the answers. Also, where possible, please reflect by use of an asterisk those expenditure and/or budget items which were necessary to implement I.G.E. versus those that were desirable.

Start-up: Total expenditures or budget first year of I.G.E.
On-going: Total expenditures or budget second year of I.G.E.
I.G.E. Cost: Any change in expenditures or budget between pre-I.G.E. program and I.G.E. on-going program.

6. Staff Development (e.g., release time for staff salaries, travel, materials, facilities, consultants, overhead)

Pre-Service (Explain) — I.G.E. Cost (pre-service) $ _____

Clue-in — Major expenditures — Start-up $ _____ / On-going $ xxxxxxx

1.

2.

3.

Overview — Start-up $ _____ / On-going $ xxxxxxx

1.

2.

3.

Clinical Workshop — Start-up $ _____ / On-going $ xxxxxxx

1.

2.

3.

Other (Visitation of schools, etc.) — Start-up $ _____ / On-going $ _____

1.

2.

3.

In-Service (Explain)

Workshops (by types) Major expenditures

1.

2.

3.

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

Visitation of schools

1.

2.

3.

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

Use of Consultants

1.

2.

3.

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

Materials

1.

2.

3.

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

Other

1.

2.

3.

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

7. Instructional (e.g., amount of expenditure for unit leader, regular staff, training and salary of instructional and clerical aides and substitute teachers; amount of expenditure for I.G.E. related equipment, supplies and materials; released time for planning; and funds associated with special education courses being incorporated with I.G.E. program)

Personnel (Explain)

Professional Staff Major expenditures

1. Start-up $ _____
   On-going $ _____
   I.G.E. Cost $ _____
2.
3.

Instructional Aides

1. Start-up $ _____
   On-going $ _____
   I.G.E. Cost $ _____
2.
3.

Clerical Aides

1. Start-up $ _____
   On-going $ _____
   I.G.E. Cost $ _____
2.
3.

Substitute Teacher

1. Start-up $ _____
   On-going $ _____
   I.G.E. Cost $ _____
2.
3.

Other (Professional books, etc.)

1. Start-up $ _____
   On-going $ _____
   I.G.E. Cost $ _____
2.
3.

Materials (Explain)

Classroom Major expenditures

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Resource Center/Library

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Teaching Supplies

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

A.V. Materials

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Planning Time (Additional cost not previously mentioned for release of staff for planning)

Unit Leaders Major expenditures

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Teachers

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Other

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Special Education (Explain)

Staff Major expenditures

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Other

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

8. Administrative (e.g., bookkeeping, evaluation and administrative personnel)

Secretarial Major expenditures

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Program Evaluation

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Administrators

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Other (Supplies, etc.)

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

9. Public Relations (e.g., newsletter, visitations, parent coffees) Major expenditures

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

10. Capital Outlay (e.g., space modifications, carpeting, lighting, instructional equipment)

Space Modifications Major expenditures

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Resource Center/Library

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Instructional Equipment

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Other

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

11. League Participation (e.g., costs of facilitator-prorate on the basis of percent of time spent facilitating)

League costs Major expenditures Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Note: Prior to completing the remainder of this questionnaire, please review the above dollar expenditure amounts. Be sure none of them represent double reporting of cost.

---

12. Supplementary Funding (Has your program been supplemented by outside funds and/or services--use of ESEA, Title I, Title III, special state funds and other. Please be sure that these funds are included in the expenditures above.)

Funds (Explain) Major Sources Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Services (Explain) Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

Other Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

1.

2.

3.

13. Other (Will you please add any additional information you feel is pertinent to the purpose of this instrument)

(Explain)

Start-up $ _____
On-going $ _____
I.G.E. Cost $ _____

APPENDIX D

REVISED INSTRUMENT

REVISED COST ANALYSIS QUESTIONNAIRE
(IGE)

The purpose of the following questions is to obtain information concerning your school and community and a profile of the cost change experienced by your school as the result of implementing the /I/D/E/A/ IGE program. Please feel free to qualify your answers or contribute any information which you feel has been overlooked.

See special Instructions Section for specific item descriptions.

PART I -- DESCRIPTIVE INFORMATION CONCERNING YOUR SCHOOL AND COMMUNITY

A. GENERAL INFORMATION

A-1 Person(s) completing this form (name, position, address, and phone):

_____

_____

_____

_____

_____

A-2 Name of school and school district:

_____

_____

A-3 What is the current operation expenditure per pupil in your school district? _____

A-4 How many years has IGE been in operation in your school?
Units in 1971-72 _____; 1972-73 _____; 1973-74 _____

A-5 What has been the degree of development of your IGE program in terms of percent of the pupils school day and by grade level?

	Percent School Day	Grade Level
1971-72		
1972-73		
1973-74		

B. SCHOOL INFORMATION PRIOR TO IGE

B-1 Grade levels in your school _____

B-2 Number of F.T.E. pupils _____

B-3 Number of F.T.E. classroom teachers _____

B-4 Number of paid F.T.E. instructional aides _____

B-5 Number of paid F.T.E. clerical aides _____

B-6 Number of F.T.E. volunteer aides _____

B-7 Number of F.T.E. student teachers or interns _____

B-8 Describe supportive staff _____

_____

_____

B-9 Describe organization of teaching units _____

_____

_____

B-10 Describe physical facilities _____

_____

_____

_____

_____

_____

_____

C. SCHOOL INFORMATION AFTER IMPLEMENTATION OF IGE

C-1 Grade levels or age groups involved in IGE _____

C-2 Number of F.T.E. pupils in IGE _____

C-3 Number of F.T.E. classroom teachers in IGE _____

C-4 Number of paid F.T.E. instructional aides involved in IGE _____

C-5 Number of paid F.T.E. clerical aides involved in IGE _____

C-6 Number of F.T.E. volunteer aides involved in IGE _____

C-7 Number of F.T.E. student teachers or interns involved in IGE _____

C-8 Describe supportive staff _____

_____

_____

C-9 Describe organization of teaching units _____

_____

_____

_____

C-10 Describe physical facilities _____

_____

_____

_____

_____

_____

_____

D. COMMUNITY INFORMATION

D-1 Describe neighborhood around your school _____

_____

_____

_____

D-2 Describe student population _____

_____

_____

_____

D-3 Describe economic level of the parents and/or guardians of the students in your school according to occupations and/or source of income _____

_____

D-4 Describe general type of your school (e.g. urban, suburban, rural)

_____

D-5 Describe general characteristics of your school district _____

_____

_____

_____

_____

PART II -- C O S T I T E M S

The following questions are designed to obtain the amount of expenditures and/or budget for an IGE program and the budget change for the school caused by IGE.

In addition to the cost item dollar expenditure it is requested that an explanation or description of the major types of expenditure making up the cost item also be included. Please be as explicit as possible. It is recognized that value judgments could be involved in some of the answers.

A. STAFF DEVELOPMENT (e.g., reimbursement for staff, substitute teachers, travel, materials, facilities, consultants, overhead)

A-1 Clue-in (Explain expenditures)

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost $ _____

A-2 Overview (Explain expenditures)

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost $ _____

A-3 Clinical Workshop (Explain expenditures)

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost $ _____

A-4 Were any of the expenditures for A 1, 2, 3, in addition to the normal pre-IGE cost requirements? Yes ☐ No ☐

If yes, how much $ _____. Explain the cause of the additional cost. _____

_____

_____

Is the additional cost anticipated to be an on-going cost? If yes, explain. _____

_____

_____

A-5 Visitation of schools (Explain expenditures)

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost $ _____

A-6 Use of Consultants (Explain expenditures)

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost $ _____

A-7 Materials (Explain expenditures)

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost $ _____

A-8 Other types of Workshops (Explain expenditures)

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost $ _____

A-9 Other (Explain expenditures)

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost $ _____

A-10 Were any of the expenditures for A 5,6,7,8,9 in addition to the normal pre-IGE cost requirements? Yes ☐ No ☐

If yes, how much $ _____. Explain the cause of the additional cost. _____

_____

_____

Is the additional cost anticipated to be an on-going cost? If yes, explain. _____

_____

_____

B. INSTRUCTIONAL PERSONNEL (e.g., amount of cost changes for unit leaders, regular staff, salary of instructional and clerical aides, substitute teachers, and released time for planning.)

B-1 Professional Staff (Cost changes)

Report and explain any changes in professional staff costs which are attributable to the IGE program.

1. _____ $ _____

2. _____ $ _____

3. _____ $ _____

Total cost change $ _____

Do you pay unit leaders an additional salary? Yes ☐ No ☐
If yes, how much? $ _____

B-2 Instructional Aides (Cost changes)

Report and explain any changes in instructional aide costs which are attributable to the IGE program. Total cost change $ _____

_____

_____

B-3 Clerical Aides (Cost changes)

Report and explain any changes in clerical aide costs which are attributable to the IGE program. Total cost change $ _____

_____

_____

B-4 Substitute Teacher (Cost changes)

Report and explain any changes in substitute teacher costs which are attributable to the IGE program.

1. _____ $ _____

2. _____ $ _____

3. _____ $ _____

Total cost change $ _____

B-5 Trade-offs (Cost changes)

Do any of the above changes in costs represent "trade-offs" of budget in one category of personnel for another area? (e.g. were funds taken from the professional staff account to hire aides, etc?)

If "trade-offs" occurred, please explain. Amount $ _____

_____

_____

_____

C. INSTRUCTIONAL MATERIALS AND SUPPLIES

C-1 Classroom (Explain expenditures)

Report and explain actual costs for classroom instructional materials and supplies which are attributable to the IGE program.

1. _____ $ _____

2. _____ $ _____

3. _____ $ _____

Total cost $ _____

C-2 Resource Center/Library (Explain expenditures)

Report and explain actual costs for resource center/library materials which are attributable to the IGE program.

1. _____ $ _____

2. _____ $ _____

3. _____ $ _____

Total cost $ _____

C-3 Other (Explain expenditures)

1. _____ $ _____

2. _____ $ _____

3. _____ $ _____

Total cost $ _____

C-4 Were any of the expenditures for C 1, 2, 3 in addition to the normal pre-IGE cost requirements? Yes ☐ No ☐

If yes, how much $ _____. Explain the cause of the additional cost. _____

_____

_____

Is the additional cost anticipated to be an on-going cost? If yes, explain. _____

_____

_____

D. ADMINISTRATIVE (e.g., bookkeeping, program evaluation and administrative personnel)

D-1 Secretary-Clerk (Cost changes)

Report and explain any change in expenditures for secretaries or clerks to support administration which are attributable to the IGE program.

1. _____ $ _____

2. _____ $ _____

3. _____ $ _____

Total cost change $ _____

D-2 Program Evaluation

What were the actual expenditures for program evaluation which are attributable to the IGE program? Total cost $ _____

Explain. _____

_____

_____

Are any of these costs an addition to the normal pre-IGE cost requirement? Yes ☐ No ☐
If yes, explain. _____

_____

_____

Is the additional cost anticipated to be an on-going cost? If yes, explain. _____

_____

D-3 Administrators

Report and explain any change in costs for administrators which are attributable to the IGE program

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost change $ _____

D-4 Other

Report and explain any other cost changes related to administration which are attributable to the IGE program.

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost change $ _____

E. PUBLIC RELATIONS

E-1 What were the actual expenditures for public relations which are attributable to the IGE program?
from the central office budget $ _____
from the schools budget $ _____
Explain the nature of public relations (newsletters, coffees, visitations, etc.) _____

_____

_____

Are any of these costs an addition to the normal pre-IGE budget?
Yes ☐ No ☐
If yes, amount of change $ _____

Explain. _____

_____

Is the additional cost anticipated to be an on-going cost? If yes, explain. _____

_____

F. CAPITAL OUTLAY AND MAINTENANCE (e.g., space modifications, carpeting, lighting, instructional equipment)

F-1 Space modifications (Major expenditures)

What were the actual costs of space modifications made specifically to accommodate the IGE program?

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost $ _____

F-2 Resource Center/Library

What actual expenditures were made on a resource center/library specifically to accommodate the IGE program?

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost $ _____

F-3 Instructional Equipment

What were the actual expenditures for instructional equipment to accommodate the IGE program?

1. _____ $ _____
2. _____ $ _____
3. _____ $ _____

Total cost $ _____

F-4 Maintenance

What actual expenditures were made for maintenance specifically to accommodate the IGE program?

1. _____ $ _____

2. _____ $ _____

3. _____ $ _____

Total cost $ _____

F-5 Other

What was the amount and nature of other capital outlays and maintenance to accommodate the IGE program?

1. _____ $ _____

2. _____ $ _____

3. _____ $ _____

Total cost $ _____

F-6 Were any of the expenditures for F 1, 2, 3, 4, 5 in addition to the normal pre-IGE cost requirements? Yes ☐ No ☐

If yes, how much $ _____. Explain the cause of the additional cost. _____

_____

_____

Is the additional cost anticipated to be an on-going cost? If yes, explain. _____

_____

_____

G. LEAGUE PARTICIPATION (e.g., costs of facilitator-prorate on the basis of percent of time spent facilitating)

G-1 League costs (Explain expenditures)

Report and explain the actual costs of participation in your league.

1. _____ $ _____

2. _____ $ _____

3. _____ $ _____

Total cost $ _____

G-2 Were any of the expenditures for G 1 in addition to the normal pre-IGE cost requirements? Yes ☐ No ☐

If yes, how much $ _____. Explain the cause of the additional cost. _____

_____

_____

Is the additional cost anticipated to be an on-going cost? If yes, explain. _____

_____

_____

- -

Note: Prior to completing the remainder of this questionnaire, please review the above dollar expenditure amounts. Be sure none of them represent double reporting of cost.

- -

H. SUPPLEMENTARY FUNDING (Has your program been supplemented by outside funds and/or services--use of ESEA, Title I, Title III, special state funds and other. Please be sure that these funds are included in the expenditures above.)

H-1 Funds (Explain Major Sources)

1. Planning Funds_____ $ _____

2. First-year Operational Funds_____ $ _____

3. On-going Funds_____ $ _____

Total Funds $ _____

Explain any services provided at no cost which have directly facilitated implementation and/or the continuation of the IGE program. _____

_____

_____

_____

I. OTHER (Will you please add any additional information you feel is pertinent to the purpose of this instrument.)

Explain._____

_____

INSTRUCTIONS FOR COMPLETING COST ANALYSIS QUESTIONNAIRE

Item descriptions of requested information for cost analysis questionnaire.

PART I. DESCRIPTIVE INFORMATION

School Information Prior to IGE

Item B-1 : An example would be K-5.

B-2 : F.T.E. refers to full time equivalent.

B-3 : Do not include supportive staff as part of this question. They are included in item B-8.

B-4 : Instructional aides include those aides that work directly with the teachers in instruction.

B-5 : Clerical aides include those aides who directly aid teachers with records and other "housekeeping" type tasks. They do not share in the actual instruction of students.

B-6 : Please specify if volunteer aides are adults or students and how many of each, if any.

B-8 : Examples of supportive staff are principal, assistant principal counselors, nurse, speech therapist, psychologist, curriculum coordinator, reading consultants, special education instructor, and physical education (body management) instructor.

B-9 : Examples might be self-contained, departmentalized or traditional.

B-10: The description should include date building was built; type of structure (e.g., single-story brick, two-story plus basement); any renovations or additions to building and when; type of floors and corridors; general description of condition of building; type and condition of classrooms; and general description of resource center/library, gymnasium and the cafeteria.

School Information After Implementation of IGE

Item C-1 : An example would be K-5 or age grouping of approximately 5-10 year old students.

C-2 : F.T.E. refers to full time equivalent.

C-3 : Do not include supportive staff as part of this question. These are included in item C-8.

C-4 : Instructional aides include those aides that work directly with the teachers in instruction.

C-5 : Clerical aides include those aides who directly aid teachers with records and other "housekeeping" type tasks. They do not share in the actual instruction of students.

C-6 : Please specify if volunteer aides are adults or students and how many of each, if any.

C-8 : See B-8, if supportive staff has changed, include description of changes.

C-9 : Include number of IGE units, also student age span and approximate number of pupils within each unit.

C-10: Mainly describe large space instructional areas, any special area for team planning, general description of resource center/ library, work areas for aides, location of units relative to facilitating unit interaction and traffic flow.

Community Information

Item D-1 : Include such characteristics as whether the neighborhood is residential and type of housing, industrial, low income, etc., and whether it is relatively stable, developing, or economically declining.

D-2 : Include characteristics as racial mix, academic level of students and type of family students are from.

D-3 : Examples would be average family income; socio-economic level; type of occupation (e.g., professional, semi-professional, middle management, blue collar, farm owners, service personnel, or unemployed)

D-4 : Examples would be urban inner-city, urban non inner-city, established suburban, developing suburban, rural or small town.

D-5 : Include such characteristics as geographic size, population base, large city (250,000 or more), medium-sized city, (50,000 to 250,000), small city (10,000 to 50,000), suburb adjacent to large city, or agricultural service center (population less than 10,000).

PART II. COST ITEMS

Staff Development

Item A-1 : Clue-in: a one-day conference conducted by an intermediate agency to acquaint local educational agencies with the IGE change strategy and program. Report such expenditures as reimbursement for staff, substitute teacher costs, travel, materials, facilities, consultants, and overhead.

A-2 : Overview: a follow-up presentation to Clue-in conducted by the intermediate agency in a school which has indicated a desire for additional information about IGE. Include such expenditures as mentioned under A-1.

A-3 : Clinical Workshop: a two-week in-service workshop conducted by an intermediate agency to train the principal and key teachers in IGE schools. The focus of this workshop is to develop local leadership and an in-depth understanding of the 35 IGE outcomes. Again, report such expenditures as referred to under A-1.

A-4 : For example, were the expenditures an addition to the pre-IGE budget or were they "trade-off" funds which would have been spent for some similar staff development program? If they were an addition, then report them.

A-5 : Record the cost to the school of sending teachers to visit other schools. Itemize major expenditures such as cost of substitute teachers, travel and lodging, etc.

A-6 : Record only the cost of external consultants. Report types of activities for which consultants were used.

A-7 : Report expenditures at the building level for films, tapes, guides, professional books, etc., that deal directly with aiding the staff in the concepts and process of IGE.

A-8 : Report costs of the district of both internal and external workshops. This may include costs of materials, travel, substitute teacher pay, additional teacher salary, workshop staff fees, etc. Do not pro-rate salary costs of regular school district staff who may be directing the workshop unless there is reason to believe they are employed solely because of the IGE program. Do not report costs that have been included elsewhere.

A-9 : Report any costs for in-service staff development not covered in the above categories.

A-10: This question asks for the temporary and permanent increase in budget needs because of the IGE program.

Instructional Personnel

Item B-1 : Report increases or decreases in total salary paid professional staff which are a direct result of the IGE program. Generally, this would be caused by a change in number of staff, a change in educational requirements, or extra pay for unit leaders.

B-2 : Report any additional salaries or cost of training for aides who work directly with teachers in instruction. Use discretion in determining if the added costs are caused by the IGE program. Separate the cost categories under the major expenditures area.

B-3 : Same as B-2 for clerical aides who directly aid teachers with records and other housekeeping type tasks.

B-4 : Report the expenditures for substitute teachers due to illness or when used to release regular teachers for planning time. Specify if the substitute teacher costs were for illness or planning time. Do not include the cost of substitute teachers used to release teachers for workshops or visitations. It was felt that because of the team aspects of IGE that there might be less of a need for substitute staff in the normal operation of the school. Comment on this, if appropriate. Any costs involved to train substitute teachers should be reported here and explained under the major expenditures area.

Instructional Materials and Supplies

Item C-1 : Report the cost of all materials and supplies assigned for use in the classroom and under the direct control of the teacher. Do not include A.V. materials, books, etc. centrally housed in other than the classroom. Do not include equipment.

C-2 : This amount should include the cost of all A.V. materials, books, films, transparencies, periodicals, etc. Do not include equipment.

C-3 : An example might be the cost of materials that are jointly shared by different schools.

C-4 : This question asks for the temporary and permanent increase in budget needs because of the IGE program.

Administrative

Item D-1 : The amount reported should reflect cost changes for clerks or secretaries salaries or training which were caused by the IGE program. Note that personnel in this section serve the building administration not the instructors.

D-2 : Self explanatory

D-3 : This item refers only to school district administrators. Do not include facilitator or other league costs. Unit leaders are not considered administrators for this item. Examples would be an additional assistant principal or extended contracts for the present administrative staff.

D-4 : Self explanatory

Public Relations

Item E-1 : When explaining the program please underline any new activity initiated because of the IGE program and indicate if it is to be a permanent addition.

Capital Outlay and Maintenance

Item F-1 : Judgment should be exercised to determine if any changes were just for IGE or if they would have been a desirable change under the previous instructional program. Report only if caused by the IGE program.

F-2 : Use the same criteria stated for F-1.

F-3 : This amount should reflect only expenditures for equipment which would not have been purchased for the previous type of organization. (e.g., instructional equipment to serve units might be more extensive, projectors, planning room equipment, etc. or if carpeting was installed to accommodate IGE, the vacuum cleaners would be required new equipment.)

F-4 : This amount should reflect only maintenance costs that would not have been incurred under the previous program. (e.g., if additional lights were installed in areas for the IGE program, then maintenance of lighting fixtures is an added cost, more or less custodial service might be required, different equipment could create changes in the budget for maintenance, etc.)

F-5 : Self explanatory

F-6 : This question asks for the temporary and permanent increase in budget needs because of the IGE program.

League Participation

Item G-1 : Do not double report the costs of workshops, consultants, or travel. Primarily this item would reflect any costs of facilitator salary, office space rent, and materials and supplies provided through the league. Prorate your share of the cost with other league members.

G-2 : This question asks for the temporary and permanent increase in budget needs because of the IGE program.

Supplementary Funding

Item H-1 : Self explanatory

Other

Item I-1 : Include cost items or savings which you feel have been overlooked in this questionnaire.